Improving Electronic Information Seeking in Interdisciplinary Research

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Discipline-Based Arrangement

Practical approach to knowledge and to efficient information seeking

Assumptions

? Researchers mostly specialize

? Little cross-disciplinary information needs perceived

? Better service by disciplinary literature

Discipline-based approach to Information Seeking

? Good for specialization

? Detrimental to interdisciplinary searchers

? Lack of understanding in interdisciplinary information seeking

? Problems in interdisciplinary information seeking not clear

? Some research areas have stronger interdisciplinary collaboration

A Case of Interdisciplinary Research

Bio-acoustics

The study of sound production and sensing by animals of all kinds, including humans

Bio-acoustic Research

? Physics of sound wave measurement in birds

? Neurophysiological anatomy of hearing system of fish

? Calling patterns of maternal penguins in Antarctica

? Damages caused by antibiotics on human hair cells

IBAC

- International Bio-Acoustics Council
- Verified members as sample population
- Member profile

Discipline background

? Agriculture

? Biology

? Chemistry

? Computer science

? Electrical engineering

? Environmental science

? Ethnology

? Oceanography

? Physics

? Statistics

Survey of Information Seeking

? Databases used

? Familiar search engines

? Platforms preferred

? Success and difficulties

Preliminary Findings

- Most frequently used systems

- Frustrations

- Don't care

- Cost as frustration and as non-concern

- Browsing as supplement to focus search

Preferred Systems

- Electronic over print
- Free over feed-based
- Accessibility
- Physical browsing

Success v. Satisfaction

- ? Satisfactory, successful commercial I&As
- ? Satisfactory, successful CDRoms
- ? Satisfactory, yet unsuccessful OPACs
- ? Successful, yet unsatisfactory fee-based systems
- ? Satisfactory, yet unsuccessful Internet

Needs in Information Seeking

- Rich document surrogates
- Multiple databases searching
- Multiple topics searching
- Both focus search and browsing
- Electronic document delivery

Essentials in Design

? **Cross database search capacity**

? **Simple searching language**

? **Easy search refining capacities**

? **Easy guide to functional search terms**

? **Search history maintenance**

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